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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,356	06/06/2007	Wolfgang Becker	3926-279	8228
41288	7590	06/22/2010		
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Hollywood, FL 33020				
EXAMINER				
PAIK, SANG YEOP				
ART UNIT		PAPER NUMBER		
3742				
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06/22/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/588,356

Applicant(s)

BECKER ET AL.

Examiner

SANG Y. PAIK

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 6-13, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman et al (US 6,483,069) in view of Mombo-Caristan (US 5,595,670) or Sciaky et al (US 4,626,653).

Coleman shows the process claimed including a laser beam directed to the metal sheets wherein the laser beam produces a topographic change in the form of a generally spherical weld bead between the metal sheets wherein the weld bead has a radius greater than the height of the bead extending from the sheet at the foot of the topographic change wherein the ratio peak radius and the height is at least 2:1 (also see Figure 6C). But, Coleman does not show that the laser beam is carried out in a movement with transverse and longitudinal components for the coated sheets.

Mombo-Caristan shows a laser beam for welding zinc coated steel wherein the laser beam describes a circular or elliptical movement with the combination of mirrors and lenses as the transverse and longitudinal components. Sciaky also shows that it is known in the art to provide a combination of the mirrors to allow a laser beam to describe a movement in a circular form that includes the transverse and longitudinal

movement. Sciaky also shows its laser beam that is discontinuously applied with regard to its power.

In view of Mombo-Caristan or Sciaky, it would have been obvious to one of ordinary skill in the art to adapt Coleman with the beam laser that is carried in the transverse and longitudinal movement for the increased welding process having an increased welding speed without defects.

With respect to the vaporization productions in claim 6, it is noted that such vaporization would have inherently occurred as the result of applying the laser beam as that of the recited claim 6.

3. Claims 4, 5, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman in view of Mombo-Caristan or Sciaky as applied to claims 1-3, 6-13, 16 and 17 above, and further in view of Stol et al (US 6,740,845) or Robertson et al (US 5,038,016).

Coleman in view of Mombo-Caristan or Sciaky shows the process claimed except for the laser beam that is not focused on the surface.

Stol or Robertson shows that it is well known to provide a defocused laser beam for welding, and Stol further shows the laser beam that describes a movement in a circular or elliptical pattern, or any other desired pattern.

In view of Stol or Robertson, it would have been obvious to one of ordinary skill in the art to adapt Coleman, as modified by Mombo-Caristan or Sciaky, with the laser beam that is defocused since such defocused laser beam is well known to effectively weld the gaps between the metal sheets while prevent melting of the sheet substrate,

and it would have been obvious to further adapt with laser beam in any figures including the recited figures to also effectively weld the abutting or adjoining coated metal sheets.

Response to Arguments

4. Applicant's arguments filed 3/26/10 have been fully considered but they are not persuasive.

The applicant argues Coleman shows a consumable weld land that is removed by a post welding mechanical machining steps. It is noted, however, Coleman clearly teaches for the recited topographic change as claimed via a laser beam. Coleman also shows two structure members such as shown in Figure 4A where such members are joined and welded at the gap or interface of the structure members. The applicant argues Coleman further teaches of the smooth finished surface, but it is noted that the recited process is shown by the applied prior art. The steps that are further taken by Coleman as argued by the applicant do not negate any teachings that are shown by the applied prior art.

With respect to Mombo-Caristan or Sciaky, it is noted that these references are applied to show the recited movement with transverse and longitudinal components that are known in the art which would have obvious to one of ordinary skill in the art to adapt such components in Coleman to also produce the topographic change with an increased welding process without defects.

As Coleman shows the recited generally spherical peak as shown in the drawing figures and which also meets the more detailed spherical peak ratio of at least 2:1 as

shown by the table in Figure 6C of Coleman, the applicant's arguments are not deemed persuasive.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SANG Y. PAIK whose telephone number is (571) 272-4783. The examiner can normally be reached on M-F (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on (571) 272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SANG Y PAIK/

Primary Examiner, Art Unit 3742